



TORQ Analysis of Packaging and Filling Machine Operators and Tenders to Sewing Machine Operators

INPUT SECTION:

| Transfer | Title | O*NET | Filters | | |
|--------------------|---|------------|------------|----------------------|-----------|
| From Title: | Packaging and Filling Machine Operators and Tenders | 51-9111.00 | Abilities: | Importance Level: 50 | Weight: 1 |
| To Title: | Sewing Machine Operators | 51-6031.00 | Skills: | Importance Level: 69 | Weight: 1 |
| Labor Market Area: | Maine Statewide | | Knowledge: | Importance Level: 69 | Weight: 1 |

OUTPUT SECTION:

Grand TORQ:

88

| Ability TORQ | | | | Skills TORQ | | | | Knowledge TORQ | | | |
|-----------------------------|-------|---------------------------|------|-----------------------------|-------|---------------------------|------|---------------------------------|-------|---------------------------|------|
| Level | | <div><div></div></div> 86 | | Level | | <div><div></div></div> 91 | | Level | | <div><div></div></div> 85 | |
| Gaps To Narrow if Possible | | | | Upgrade These Skills | | | | Knowledge to Add | | | |
| Ability | Level | Gap | Impt | Skill | Level | Gap | Impt | Knowledge | Level | Gap | Impt |
| Arm-Hand Steadiness | 51 | 9 | 65 | No Skills Upgrade Required! | | | | No Knowledge Upgrades Required! | | | |
| Visual Color Discrimination | 46 | 5 | 56 | | | | | | | | |

LEVEL and IMPT (IMPORTANCE) refer to the Target Sewing Machine Operators. GAP refers to level difference between Packaging and Filling Machine Operators and Tenders and Sewing Machine Operators.

ASK ANALYSIS

Ability Level Comparison - Abilities with importance scores over 50

| Description | Packaging and Filling Machine Operators and Tenders | Sewing Machine Operators | Importance |
|-----------------------------|---|--------------------------|------------|
| Arm-Hand Steadiness | 42 | 51 | 65 |
| Manual Dexterity | 53 | 42 | 62 |
| Control Precision | 60 | 42 | 62 |
| Rate Control | 41 | 39 | 59 |
| Information Ordering | 42 | 37 | 56 |
| Finger Dexterity | 55 | 44 | 56 |
| Near Vision | 60 | 48 | 56 |
| Visual Color Discrimination | 41 | 46 | 56 |
| Problem Sensitivity | 48 | 39 | 53 |
| Multilimb Coordination | 48 | 37 | 53 |
| Deductive Reasoning | 44 | 35 | 50 |



| | | | | | |
|---|---|--------------------------|----|------------|----|
| Visualization | 48 | | 39 | | 50 |
| Skill Level Comparison - Abilities with importance scores over 69 | | | | | |
| Description | Packaging and Filling Machine Operators and Tenders | Sewing Machine Operators | | Importance | |
| Knowledge Level Comparison - Knowledge with importance scores over 69 | | | | | |
| Description | Packaging and Filling Machine Operators and Tenders | Sewing Machine Operators | | Importance | |

| Experience & Education Comparison | | | | | |
|---|---|--------------------------|--|---|--------------------------|
| Related Work Experience Comparison | | | Required Education Level Comparison | | |
| Description | Packaging and Filling Machine Operators and Tenders | Sewing Machine Operators | Description | Packaging and Filling Machine Operators and Tenders | Sewing Machine Operators |
| 10+ years | 0% | 0% | Doctoral | 0% | 0% |
| 8-10 years | 0% | 0% | Professional Degree | 0% | 0% |
| 6-8 years | 14% | 0% | Post-Masters Cert | 0% | 0% |
| 4-6 years | 0% | 8% | Master's Degree | 0% | 0% |
| 2-4 years | 0% | 13% | Post-Bachelor Cert | 0% | 0% |
| 1-2 years | 0% | 9% | Bachelors | 0% | 2% |
| 6-12 months | 54% | 11% | AA or Equiv | 14% | 0% |
| 3-6 months | 0% | 0% | Some College | 0% | 3% |
| 1-3 months | 0% | 5% | Post-Secondary Certificate | 0% | 2% |
| 0-1 month | 5% | 0% | High School Diploma or GED | 71% | 12% |
| None | 25% | 51% | No HSD or GED | 13% | 73% |
| Packaging and Filling Machine Operators and Tenders | | | Sewing Machine Operators | | |
| Most Common Educational/Training Requirement: | | | | | |
| Short-term on-the-job training | | | Moderate-term on-the-job training | | |
| Job Zone Comparison | | | | | |
| 2 - Job Zone Two: Some Preparation Needed | | | 1 - Job Zone One: Little or No Preparation Needed | | |
| Some previous work-related skill, knowledge, or experience may be helpful in these occupations, but usually is not needed. For example, a teller might benefit from experience working directly with the public, but an inexperienced person could still learn to be a teller with little difficulty. | | | No previous work-related skill, knowledge, or experience is needed for these occupations. For example, a person can become a cashier even if he/she has never worked before. | | |
| These occupations usually require a high school diploma and may require some vocational training or job-related course work. In some cases, an associate's or bachelor's degree could be needed. | | | These occupations may require a high school diploma or GED certificate. Some may require a formal training course to obtain a license. | | |
| Employees in these occupations need anywhere from a few months to one year of working with experienced employees. | | | Employees in these occupations need anywhere from a few days to a few months of training. Usually, an experienced worker could show you how to do the job. | | |

| Tasks | |
|---|--------------------------|
| Packaging and Filling Machine Operators and Tenders | Sewing Machine Operators |



Core Tasks

Generalized Work Activities:

- Communicating with Supervisors, Peers, or Subordinates - Providing information to supervisors, co-workers, and subordinates by telephone, in written form, e-mail, or in person.
- Controlling Machines and Processes - Using either control mechanisms or direct physical activity to operate machines or processes (not including computers or vehicles).
- Inspecting Equipment, Structures, or Material - Inspecting equipment, structures, or materials to identify the cause of errors or other problems or defects.
- Evaluating Information to Determine Compliance with Standards - Using relevant information and individual judgment to determine whether events or processes comply with laws, regulations, or standards.
- Making Decisions and Solving Problems - Analyzing information and evaluating results to choose the best solution and solve problems.
- Scheduling Work and Activities - Scheduling events, programs, and activities, as well as the work of others.

Specific Tasks

Occupation Specific Tasks:

- Adjust machine components and machine tension and pressure according to size or processing angle of product.
- Attach identification labels to finished packaged items, or cut stencils and stencil information on containers, such as lot numbers or shipping destinations.
- Clean and remove damaged or otherwise inferior materials to prepare raw products for processing.
- Clean packaging containers, line and pad crates, or assemble cartons to prepare for product packing.
- Clean, oil, and make minor adjustments or repairs to machinery and equipment, such as opening valves or setting guides.
- Count and record finished and rejected packaged items.
- Inspect and remove defective products and packaging material.
- Monitor the production line, watching for problems such as pile-ups, jams, or glue that isn't sticking properly.
- Observe machine operations to ensure quality and conformity of filled or packaged products to standards.
- Package the product in the form in which it will be sent out, for example, filling bags with flour from a chute or spout.

Core Tasks

Generalized Work Activities:

- Getting Information - Observing, receiving, and otherwise obtaining information from all relevant sources.
- Controlling Machines and Processes - Using either control mechanisms or direct physical activity to operate machines or processes (not including computers or vehicles).
- Handling and Moving Objects - Using hands and arms in handling, installing, positioning, and moving materials, and manipulating things.
- Inspecting Equipment, Structures, or Material - Inspecting equipment, structures, or materials to identify the cause of errors or other problems or defects.
- Communicating with Supervisors, Peers, or Subordinates - Providing information to supervisors, co-workers, and subordinates by telephone, in written form, e-mail, or in person.

Specific Tasks

Occupation Specific Tasks:

- Attach buttons, hooks, zippers, fasteners, or other accessories to fabric, using feeding hoppers or clamp holders.
- Attach tape, trim, appliques, or elastic to specified garments or garment parts, according to item specifications.
- Baste edges of material to align and temporarily secure parts for final assembly.
- Cut excess material or thread from finished products.
- Cut materials according to specifications, using blades, scissors, or electric knives.
- Draw markings or pin appliques on fabric to obtain variations in design.
- Examine and measure finished articles to verify conformance to standards, using rulers.
- Fold or stretch edges or lengths of items while sewing, in order to facilitate forming specified sections.
- Guide garments or garment parts under machine needles and presser feet to sew parts together.
- Inspect garments, and examine repair tags and markings on garments to locate defects or damage, and mark errors as necessary.
- Match cloth pieces in correct sequences prior to sewing them, and verify that dye lots and patterns match.
- Monitor machine operation to detect problems such as defective stitching, breaks in thread, or machine malfunctions.
- Mount attachments, such as needles, cutting blades, or pattern plates, and



- Regulate machine flow, speed, or temperature.
- Remove finished packaged items from machine and separate rejected items.
- Secure finished packaged items by hand tying, sewing, gluing, stapling, or attaching fastener.
- Sort, grade, weigh, and inspect products, verifying and adjusting product weight or measurement to meet specifications.
- Stack finished packaged items, or wrap protective material around each item and pack the items in cartons or containers.
- Start machine by engaging controls.
- Stock and sort product for packaging or filling machine operation, and replenish packaging supplies, such as wrapping paper, plastic sheet, boxes, cartons, glue, ink, or labels.
- Stop or reset machines when malfunctions occur, clear machine jams, and report malfunctions to a supervisor.
- Supply materials to spindles, conveyors, hoppers, or other feeding devices and unload packaged product.
- Tend or operate machine that packages product.

Detailed Tasks

Detailed Work Activities:

- adjust production equipment/machinery setup
- attach or mark identification onto products or containers
- clean equipment or machinery
- examine products or work to verify conformance to specifications
- grade, classify, or sort products according to specifications
- load or unload material or workpiece into machinery
- load, unload, or stack containers, materials, or products
- maintain consistent production quality
- maintain or repair industrial or related equipment/machinery
- maintain production or work records
- measure, weigh, or count products or materials
- monitor production machinery/equipment operation to detect problems
- operate packaging or banding machine or equipment
- package goods for shipment or storage
- perform safety inspections in manufacturing or industrial setting
- stock or organize goods
- test manufactured products or materials
- wrap products

adjust machine guides according to specifications.

- Perform equipment maintenance tasks such as replacing needles, sanding rough areas of needles, or cleaning and oiling sewing machines.
- Perform specialized or automatic sewing machine functions, such as buttonhole making or tacking.
- Place spools of thread, cord, or other materials on spindles, insert bobbins, and thread ends through machine guides and components.
- Position and mark patterns on materials to prepare for sewing.
- Position items under needles, using marks on machines, clamps, templates, or cloth as guides.
- Position material or articles in clamps, templates, or hoop frames prior to automatic operation of machines.
- Record quantities of materials processed.
- Remove holding devices and finished items from machines.
- Repair or alter items by adding replacement parts or missing stitches.
- Select supplies such as fasteners and thread, according to job requirements.
- Start and operate or tend machines, such as single or double needle serging and flat-bed felling machines, to automatically join, reinforce, or decorate material or articles.
- Tape or twist together thread or cord to repair breaks.
- Turn knobs, screws, and dials to adjust settings of machines, according to garment styles and equipment performance.

Detailed Tasks

Detailed Work Activities:

- adjust production equipment/machinery setup
- clean equipment or machinery
- cut or trim fabric or leather
- examine products or work to verify conformance to specifications
- install equipment or attachments on machinery or related structures
- load or unload material or workpiece into machinery
- maintain consistent production quality
- maintain production or work records
- monitor production machinery/equipment operation to detect problems
- operate sewing machine
- perform safety inspections in manufacturing or industrial setting
- read work order, instructions, formulas, or



Technology - Examples

Data base user interface and query software

- Data entry software

Electronic mail software

- Email software

Label making software

- Label printing software

Spreadsheet software

- Spreadsheet software

Word processing software

- Word processing software

Tools - Examples

- Adjustable wrenches
- Dial calipers
- Desktop computers
- Industrial platform scales
- Forklifts
- Glue guns
- Claw hammers
- Handtrucks
- Pallet jacks
- Label-making machines
- Powered roll lifts
- Locking pliers
- Pallet movers
- Personal computers
- Power drills
- Box cutters
- Scanners
- Phillips head screwdrivers
- Industrial sewing machines
- Power staple guns
- Stencils
- Step stools

processing charts

- repair tears or defects in fabrics, garments, or leather products
- sew by hand
- use hand or power tools
- use portable electric fabric cutter

Technology - Examples



- Measuring tapes
- Space measuring gauges
- Utility knives
- Wire brushes

Labor Market Comparison

| Description | Packaging and Filling Machine Operators and Tenders | Sewing Machine Operators | Difference |
|---------------------------------------|---|--------------------------|-------------|
| Median Wage | \$ 24,800 | \$ 22,440 | \$ (2,360) |
| 10th Percentile Wage | \$ 17,150 | \$ 16,350 | \$ (800) |
| 25th Percentile Wage | N/A | N/A | N/A |
| 75th Percentile Wage | \$ 29,350 | \$ 27,200 | \$ (2,150) |
| 90th Percentile Wage | \$ 41,440 | \$ 31,710 | \$ (9,730) |
| Mean Wage | \$ 26,470 | \$ 23,030 | \$ (3,440) |
| Total Employment - 2007 | 1,710 | 1,080 | -630 |
| Employment Base - 2006 | 1,787 | 1,077 | -710 |
| Projected Employment - 2016 | 1,569 | 990 | -579 |
| Projected Job Growth - 2006-2016 | -12.2 % | -8.1 % | 4.1 % |
| Projected Annual Openings - 2006-2016 | 33 | 10 | -23 |

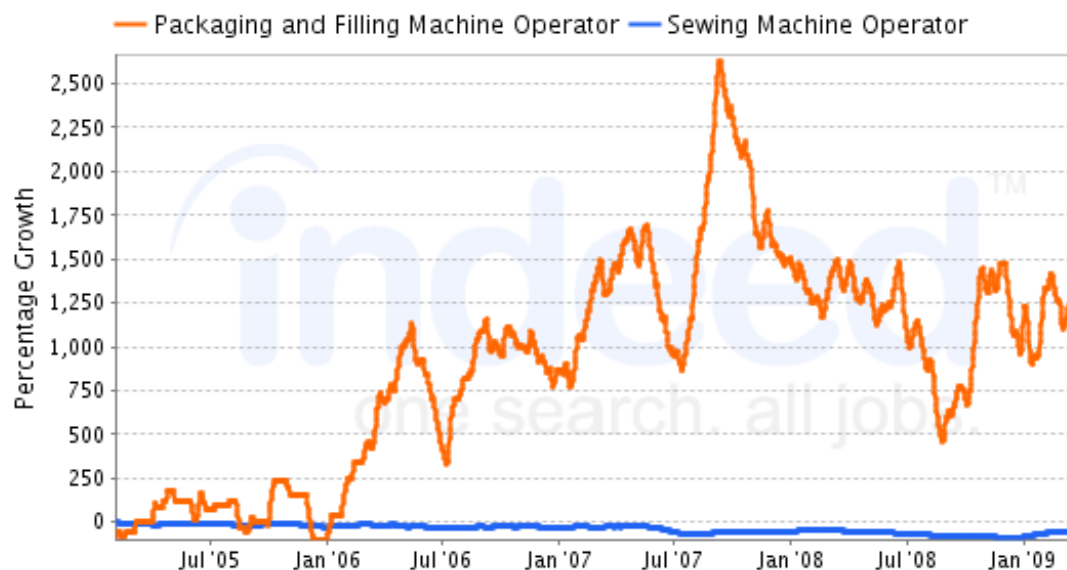
National Job Posting Trends

Trend for Packaging and Filling Machine Operators and Tenders

Trend for
Sewing
Machine
Operators



Job Trends from Indeed.com



Data from [Indeed](http://Indeed.com)

Recommended Programs

No program data for the occupation.

Maine Statewide Promotion Opportunities for Packaging and Filling Machine Operators and Tenders

| O*NET Code | Title | Grand TORQ | Job Zone | Employment | Median Wage | Difference | Growth | Annual Job Openings |
|------------|--|------------|----------|------------|-------------|-------------|--------|---------------------|
| 51-9111.00 | Packaging and Filling Machine Operators and Tenders | 100 | 2 | 1,710 | \$24,800.00 | \$0.00 | -12% | 33 |
| 51-9121.00 | Coating, Painting, and Spraying Machine Setters, Operators, and Tenders | 88 | 2 | 850 | \$38,860.00 | \$14,060.00 | -26% | 19 |
| 51-9196.00 | Paper Goods Machine Setters, Operators, and Tenders | 88 | 2 | 910 | \$38,230.00 | \$13,430.00 | -26% | 23 |
| 53-7063.00 | Machine Feeders and Offbearers | 88 | 1 | 480 | \$26,820.00 | \$2,020.00 | -22% | 9 |
| 51-9041.00 | Extruding, Forming, Pressing, and Compacting Machine Setters, Operators, and Tenders | 87 | 2 | 260 | \$28,330.00 | \$3,530.00 | -7% | 5 |



| | | | | | | | | |
|------------|--|----|---|-----|-------------|-------------|------|----|
| 51-4122.00 | Welding, Soldering, and Brazing Machine Setters, Operators, and Tenders | 87 | 2 | 120 | \$36,960.00 | \$12,160.00 | 2% | 3 |
| 51-6064.00 | Textile Winding, Twisting, and Drawing Out Machine Setters, Operators, and Tenders | 87 | 3 | 290 | \$25,840.00 | \$1,040.00 | 0% | 0 |
| 51-9032.00 | Cutting and Slicing Machine Setters, Operators, and Tenders | 87 | 2 | 710 | \$31,350.00 | \$6,550.00 | -23% | 12 |
| 51-2031.00 | Engine and Other Machine Assemblers | 87 | 3 | 20 | \$29,010.00 | \$4,210.00 | -45% | 1 |
| 51-5021.00 | Job Printers | 87 | 3 | 140 | \$31,890.00 | \$7,090.00 | -10% | 2 |
| 51-4023.00 | Rolling Machine Setters, Operators, and Tenders, Metal and Plastic | 86 | 2 | 0 | \$33,460.00 | \$8,660.00 | 0% | 0 |
| 51-9051.00 | Furnace, Kiln, Oven, Drier, and Kettle Operators and Tenders | 86 | 2 | 300 | \$32,980.00 | \$8,180.00 | -18% | 9 |
| 51-9191.00 | Cementing and Gluing Machine Operators and Tenders | 85 | 1 | 80 | \$27,620.00 | \$2,820.00 | -15% | 2 |
| 51-6062.00 | Textile Cutting Machine Setters, Operators, and Tenders | 85 | 3 | 110 | \$24,860.00 | \$60.00 | -13% | 4 |
| 51-5011.00 | Bindery Workers | 84 | 2 | 350 | \$26,130.00 | \$1,330.00 | -20% | 5 |

Top Industries for Sewing Machine Operators

| Industry | NAICS | % in Industry | Employment | Projected Employment | % Change |
|---|--------|---------------|------------|----------------------|----------|
| Cut and sew apparel manufacturing | 315200 | 37.46% | 87,218 | 36,829 | -57.77% |
| Other textile product mills | 314900 | 8.50% | 19,797 | 17,782 | -10.18% |
| Textile furnishings mills | 314100 | 7.91% | 18,422 | 16,690 | -9.40% |
| Self-employed workers, primary job | 000601 | 7.29% | 16,967 | 18,076 | 6.54% |
| Household and institutional furniture manufacturing | 337120 | 6.35% | 14,794 | 12,383 | -16.30% |
| Apparel accessories and other apparel manufacturing | 315900 | 2.75% | 6,400 | 4,026 | -37.09% |



| | | | | | |
|---|--------|-------|-------|-------|---------|
| Apparel knitting mills | 315100 | 2.14% | 4,987 | 2,805 | -43.75% |
| Medical equipment and supplies manufacturing | 339100 | 2.01% | 4,674 | 4,781 | 2.29% |
| Other furniture related product manufacturing | 337900 | 1.88% | 4,384 | 4,577 | 4.40% |
| Printing and related support activities | 323100 | 1.73% | 4,029 | 3,192 | -20.77% |
| Motor vehicle parts manufacturing | 336300 | 1.48% | 3,443 | 2,741 | -20.39% |
| Fabric mills | 313200 | 1.36% | 3,162 | 2,233 | -29.38% |
| Drycleaning and laundry services | 812300 | 1.35% | 3,133 | 3,133 | 0.01% |
| Clothing stores | 448100 | 1.31% | 3,053 | 2,973 | -2.63% |
| Footwear manufacturing | 316200 | 0.92% | 2,134 | 1,000 | -53.16% |

Top Industries for Packaging and Filling Machine Operators and Tenders

| Industry | NAICS | % in Industry | Employment | Projected Employment | % Change |
|---|--------|---------------|------------|----------------------|----------|
| Employment services | 561300 | 15.91% | 61,399 | 69,938 | 13.91% |
| Fruit and vegetable preserving and specialty food manufacturing | 311400 | 6.27% | 24,207 | 19,753 | -18.40% |
| Pharmaceutical and medicine manufacturing | 325400 | 5.30% | 20,448 | 23,193 | 13.42% |
| Beverage manufacturing | 312100 | 5.21% | 20,102 | 16,990 | -15.48% |
| Animal slaughtering and processing | 311600 | 4.44% | 17,134 | 17,599 | 2.71% |
| Other food manufacturing | 311900 | 4.04% | 15,606 | 14,726 | -5.63% |
| Plastics product manufacturing | 326100 | 4.03% | 15,570 | 14,854 | -4.60% |
| Bakeries and tortilla manufacturing | 311800 | 3.58% | 13,834 | 12,718 | -8.07% |
| Soap, cleaning compound, and toilet preparation manufacturing | 325600 | 3.46% | 13,344 | 11,539 | -13.53% |
| Other support services | 561900 | 3.44% | 13,269 | 16,360 | 23.29% |
| Dairy product manufacturing | 311500 | 3.40% | 13,143 | 11,702 | -10.96% |
| Grocery and related product wholesalers | 424400 | 2.79% | 10,767 | 10,596 | -1.59% |
| Warehousing and storage | 493100 | 1.86% | 7,173 | 8,622 | 20.21% |
| Grain and oilseed milling | 311200 | 1.80% | 6,939 | 5,446 | -21.51% |
| Sugar and confectionery product manufacturing | 311300 | 1.63% | 6,276 | 4,758 | -24.20% |